

Claims:

1. A system for monitoring and controlling one or more utility systems, comprising:

a utility system main supply line for supplying a utility to at least one of a structure, an area and a building;

5 a controlled shut-off device on said utility system main supply line, said controlled shut-off device bias toward an open position and movable toward a closed position upon receipt of an actuation signal wherein said utility is prevented from passing by said controlled shut-off device;

a main utility sensor on said utility system main supply line;

10 a motion sensor in said building that detects occupancy;

a processor communicating with said controlled shut-off device, said main utility sensor and said motion sensor, said processor sending said actuation signal to said controlled shut-off device to move said controlled shut-off device toward said closed position when input from said main utility sensor and said motion sensor indicates  
15 occurrence of an abnormal event.

2. The system of claim 1 wherein the utility is one of gas, electric and water.

3. The system of claim 1 wherein said utility sensor and said motion sensor indicate said occurrence of said abnormal event when at least one of:

(a) said motion sensor indicates that said building is unoccupied and said utility sensor indicates that said utility is one of (i) being used in excess of a specified  
5 unoccupied amount and (ii) being used continuously in excess of a specified unoccupied period of time; and

(b) said motion sensor indicates that said building is occupied and said utility sensor indicates that said utility is one of (i) being used in excess of a specified occupied amount and (ii) being used continuously in excess of a specified occupied  
10 period of time.

4. The system of claim 1 further including:

a local controlled shut-off device spaced downstream from said controlled shut-off device and adjacent an appliance that uses said utility, said local controlled shut-off device bias toward a local device open position and movable toward a local device closed position upon receipt of a local actuation signal wherein said utility is prevented from passing by said local controlled shut-off device;

a local utility sensor adjacent said local controlled shut-off device; and

said processor communicating with said local controlled shut-off device and said local utility sensor, said processor sending said local actuation signal to said local controlled shut-off device to move said local controlled shut-off device toward said local device closed position when input from said local utility sensor and said motion sensor indicates said occurrence of said abnormal event.

5. The system of claim 1 further including:

a local controlled shut-off device spaced downstream from said controlled shut-off device and upstream from one of a room, a designated area and a circuit to which said utility is supplied, said local controlled shut-off device bias toward a local device open position and movable toward a local device closed position upon receipt of a local actuation signal wherein said utility is prevented from passing by said local controlled shut-off device;

a local utility sensor adjacent said local controlled shut-off device; and

said processor communicating with said local controlled shut-off device and said local utility sensor, said processor sending said local actuation signal to said local controlled shut-off device to move said local controlled shut-off device toward said local device closed position when input from at least one of said local utility sensor and said motion sensor indicates said occurrence of said abnormal event.

6. The system of claim 5 wherein said local controlled shut-off device is upstream of one of said room and said designated area, and said motion sensor is positioned in said one of said room and said designated area.

7. The system of claim 1 further including:

a plurality of local controlled shut-off devices downstream from said controlled shut-off device, each of said plurality of local controlled shut-off devices bias toward a local device open position and movable toward a local device closed position upon receipt of a local actuation signal from said processor wherein said utility is prevented from passing thereby;

a plurality of local utility sensors associated with said plurality of local controlled shut-off devices; and

said processor communicating with said plurality of local controlled shut-off devices and said plurality of local utility sensors; said processor sending said local actuation signal to one of said plurality of local controlled shut-off devices when input from said plurality of local utility sensors and said motion sensor indicates said occurrence of said abnormal event.

8. The system of claim 7 wherein said processor includes:

a means for collecting data from said main utility sensor and said plurality of local utility sensors;

a means for processing said collected data; and

a means for determining if said input is indicating said occurrence of said abnormal event based on said collected data.

9. The system of claim 1 wherein communication between said processor and said controlled shut-off device, main utility sensor and said motion sensor occurs through wires or wirelessly.

10. The system of claim 1 wherein said processor is connected to a battery backup power supply.

11. The system of claim 1 further including an alarm that actuates when said processor sends said actuation signal.

12. The system of claim 1 wherein said processor is connected to at least one of an alarm system and a security system.

13. The system of claim 1 further including:

a temperature sensor communicating with said processor, said processor sending said actuation signal to said controlled shut-off device to move said controlled shut-off device toward said closed position when input from said main utility sensor,  
5 said motion sensor and said temperature sensor indicates occurrence of an abnormal event.

14. The system of claim 1 wherein said utility is one of gas utility, an electric utility and a water utility and said system further includes:

a second controlled shut-off device on a second utility system main supply line that supplies one of the other of said gas utility, said electric utility and said water utility,  
5 said second controlled shut-off device bias toward a second device open position and movable toward a second device closed position upon receipt of said actuation signal from said processor.

15. A system for monitoring and controlling utility systems, comprising:

a water main supply line for supplying water to a building;  
a gas main supply line for supplying gas to said building;  
an electric main supply line for supplying electricity to said building;  
5 a controlled main water valve on said water main supply line that selectively prevents water from passing therethrough;  
a controlled main gas valve on said gas main supply line that selectively prevents gas from passing therethrough;  
a controlled main electric switch on said electric main supply line that selectively

- 10 prevents electricity from passing therethrough;  
a main water sensor on said water main supply line for monitoring the flow of water therethrough;  
a main gas sensor on said gas main supply line for monitoring the flow of gas therethrough;
- 15 a main electric sensor on said electric main supply line for monitoring the flow of electricity therethrough;  
at least one motion sensor in said building to monitor occupancy of said building; and  
a processor that (1) receives feedback from said main water, gas and electric
- 20 sensors and from said at least one motion sensor, (2) processes said feedback and (3) controls said controlled main water valve, said controlled main gas valve and said controlled main electric switch based on the processed feedback.